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10/802,794	03/18/2004	Satoshi Miyaji	042141	4593
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/802,794	MIYAJI ET AL.	
	Examiner	Art Unit	
	KAN YUEN	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 August 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-8 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 4 and 5 are objected to because of the following informalities:
3. In claim 4, the applicant is suggest to change the limitation recited as "wherein the sender side apparatus sends a set of packets combined in the order of a sender report packet having a small size, a sender report packet having a large size, and media packets" to "wherein the sender side apparatus sends a set of packets combined in the order of a sender report packet having a small size, a receiver report packet having a large size, and media packets". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The applicant has amended claim 1, which now includes the limitation of "which is being altered second by second". The applicant also indicated in the remark that in page 3, lines 19-27 of the instant application, wherein the bit rate (rate mode) is altering in step by step (per second basis). However, the definition of the phrase "step by step" is not the same as the phrase "second by second". Therefore, the instant application does not support the newly added limitation "which is being altered second by second". The examiner has no other option but to interpret the newly added limitation "which is being altered second by second" to be "which is being altered step by step".

Claim Rejections - 35 USC § 103

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161) and further in view of Bonomi et al. (Pat No.: 6069872).

For claim 1, Kikuchi et al. disclosed the method of sending and receiving a sender report packet and a receiver report packet between the sender side apparatus (**Kikuchi et al. fig. 3 measuring equipment 110**) and the receiver side apparatus (**Kikuchi et al. fig. 3, client 101**) wherein each of the sender report packet and the receiver report packet comprises report packets of two kinds differing in size (**Kikuchi et al. see column 4, lines 7-20, column 8, lines 42-62, fig. 4, packet unit 114**). The unit 114 transmits two control packets whose data lengths are different from each other to the client 101. The round-trip time measuring unit 134 measures round trip times of each of the two control packets.

However, Kikuchi et al. silent on the method of the sender side apparatus comprises a transmission bit rate estimation means for estimating transmission bit rate on the basis of round-trip delay time for a sender report packet and a receiver report packet each having a small size and round-trip delay time for a sender report packet and a receiver report packet each having a large size.

Uemura et al. from the same or similar fields of endeavor teaches the method of the sender side apparatus comprises a transmission bit rate estimation means for estimating transmission bit rate on the basis of round-trip delay time for a sender report packet and a receiver report packet each having a small size and round-trip delay time for a sender report packet and a receiver report packet each having a large size

(Uemura et al. column 5, lines 12-30). The line controller 302 dynamically determines a transmission rate of the line by measuring a round-trip time between the line controller 302 and the line controller 202. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Uemura et al. in the network of Kikuchi et al. The motivation for using the method as taught by Uemura et al. in the network of Kikuchi et al. being that it determines transmission parameter accuracy in the system.

However, Kikuchi et al. and Uemura et al. both did not disclose the feature of estimating the instantaneous transmission bit rate, which is being altered step by step.

Bonomi et al. from the same or similar fields of endeavor disclosed the feature of estimating the instantaneous transmission bit rate, which is being altered step by step

(Bonomi et al. column 3, lines 1-25). To achieve this separation, the switch will compute periodically a common fair bit rate that may apply to all of the VCs sharing a transmission resource within the switch and which may alter the explicit rate in the RM cells of each different VC connected to that resource. Depending on the fairness definition adopted, the explicit rate for a particular VC is calculated differently.

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the feature as taught by Bonomi et al. in the network of Kikuchi et al. and Uemura et al. The motivation for using the method being that it exhibits good transient behavior, achieves high utilization and has minimal steady state queue length.

Regarding claim 2, Kikuchi et al. disclosed the method of the transmission bit rate estimation means estimates transmission bit rate by using dual linear simultaneous equations composed of an equation for finding round-trip delay time for the sender report packet and the receiver report packet each having the small size and an equation for finding round-trip delay time for the sender report packet and the receiver report packet each having the large size (**Kikuchi et al. see column 15, lines 23-45**).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161), and Bonomi et al. (Pat No.: 6069872), as applied to claim 1 above, and further in view of Lansing et al. (Pub No.: 2008/0089342).

For claim 3, Kikuchi et al. Uemura et al., and Bonomi et al. are silent on the method of the sender report packet and the receiver report packet each having the large size are obtained by adding dummy data to the sender report packet and the receiver report packet each having the small size, respectively. Lansing et al. from the same or similar fields of endeavor teaches the method of the sender report packet and the receiver report packet each having the large size are obtained by adding dummy data to the sender report packet and the receiver report packet each having the small size, respectively (**Lansing et al. paragraph 0059**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Lansing et al. in the network of Kikuchi et al. Uemura et al., and Bonomi et al. The

motivation for using the method as taught by Lansing et al. in the network of Kikuchi et al. Uemura et al., and Bonomi et al. being that it determines transmission parameter accuracy in the system.

10. Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161), Bonomi et al. (Pat No.: 6069872) and Lansing et al. (Pub No.: 2008/0089342), as applied to claim 3 above, and further in view of Erickson et al. (Pat No.: 7103062).

For claim 4, Kikuchi et al., Uemura et al. Bonomi et al. and Lansing et al. all silent on the method of the sender side apparatus sends a set of packets combined in the order of a sender report packet having a small size, a sender report packet having a large size, and media packets. Erickson et al. from the same or similar fields of endeavor teaches the method of the sender side apparatus sends a set of packets combined in the order of a sender report packet having a small size, a sender report packet having a large size, and media packets (**Erickson et al. column 3, lines 25-40**). CDCC has means to distributing the audio data and variable-length control data to a plurality of peripheral equipment, wherein sending control data before the sending of audio data is obvious to a person of ordinary skill in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Erickson et al. in the network of Kikuchi et al., Uemura et al. Bonomi et al. and Lansing et al. The motivation for using the method as taught by

Erickson et al. in the network of Kikuchi et al., Uemura et al. Bonomi et al. and Lansing et al. being that it provides reliability in the system.

Regarding claim 5, Erickson et al. disclosed the method of encoding transceiver apparatus according to claim 4, wherein, after sending and receiving of a set of packets have been finished, the next set of packets is sent (**Erickson et al. column 3, lines 25-40**). Since the first set of audio data and control data can be sent, therefore it's obvious to send out another set in different time slot.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161), Bonomi et al. (Pat No.: 6069872) and Lansing et al. (Pub No.: 2008/0089342), as applied to claim 3 above, and further in view of Nygard et al. (Pat No.: 6044082).

For claim 6, Kikuchi et al., Uemura et al. Bonomi et al. and Lansing et al. all silent on the method of the dummy data has been subjected to compression processing. Nygard et al. from the same or similar fields of endeavor teaches the method of the dummy data has been subjected to compression processing (**see column 1, lines 60-67**). The compressed speech signal is switched by adding dummy bits or data to the compressed signal. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Nygard et al. in the network of Kikuchi et al., Uemura et al. Bonomi et al. and Lansing et al. The motivation for using the method as taught by Nygard et al. in the network of Kikuchi et al., Uemura

et al. Bonomi et al. and Lansing et al. being that it improves the communication system complexity.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161), Bonomi et al. (Pat No.: 6069872) as applied to claim 1 above, and further in view of Gardner et al. (Pat No. 6327275).

For claim 7, Kikuchi et al. Uemura et al. and Bonomi et al. both silent on the method of transmission bit rate estimated by the transmission bit rate estimation means is reflected into encoding for media. Gardner et al. from the same or similar fields of endeavor teaches the method of transmission bit rate estimated by the transmission bit rate estimation means is reflected into encoding for media (**see column 1, lines 58-67**). The encoder manipulates the transmission rate to control the overflow and underflow of a buffer. Therefore, we can interpret the encoding rate controls or reflects the transmission rate. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Gardner et al. in the network of Kikuchi et al. Uemura et al. and Bonomi et al. The motivation for using the method as taught by Gardner et al. in the network of Kikuchi et al. Uemura et al. and Bonomi et al. being that it balances the buffers in the system.

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (Pat No.: 7120125, in view of Uemura et al. (Pat No.: 6430161) Bonomi et al. (Pat No.: 6069872) and Gardner et al. (Pat No. 6327275), as applied to claim 7 above, and further in view of Krishnamachari et al. (Pub No.: 2003/0072376).

For claim 8, Kikuchi et al., Uemura et al. Bonomi et al. and Gardner et al. all silent on the method of reflecting the transmission rate on a network estimated by the transmission bit rate estimation means into encoding for media, rate control is conducted according to priority of subject media. Krishnamachari et al. from the same or similar fields of endeavor teaches the method of reflecting the transmission rate on a network estimated by the transmission bit rate estimation means into encoding for media, rate control is conducted according to priority of subject media (**see paragraph 0024, lines 1-30**). The prioritized packets are assigned to different modulation technique based on the priority of the packets. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Krishnamachari et al. in the network of Kikuchi et al., Uemura et al. Bonomi et al. and Gardner et al. The motivation for using the method as taught by Krishnamachari et al. in the network of Kikuchi et al., Uemura et al. Bonomi et al. and Gardner et al. being that it increases the capacity of buffers in the system.

Examiner's Note:

14. Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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